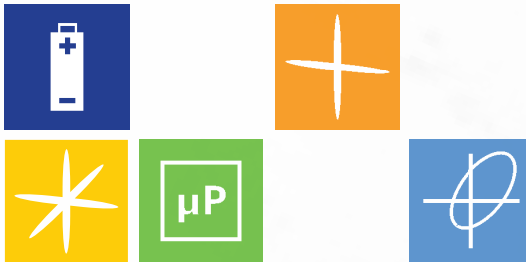


CompassPoint Prime

3-axis digital compass module



**A COMPLETE 3-AXIS
COMPASS FOR A
2-AXIS PRICE.**



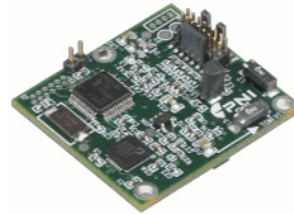
THE HIGHEST-PERFORMANCE 3-AXIS

COMPASS module in its price range, PNI's CompassPoint™ Prime provides pitch, roll and compass heading anywhere GPS is compromised or unavailable — underwater or underground, beneath bridges or inside buildings.

The low-power consumption, low-cost CompassPoint Prime provides all-digital compass heading outputs accurate to 1 degree, can be calibrated to account for magnetic distortions, and offers several user-programmable parameters — including output damping, reporting units, and sampling configuration. Designed for flexibility and adaptability, it's a perfect fit for sonobuoys, ROVs, AUVs, and cost-sensitive applications that require a full-featured 3-axis digital compass.

Full featured digital compass...

By combining PNI's patented magneto-inductive sensors with a 3-axis MEMS accelerometer, the Prime is a low-cost compass that provides accurate heading and tilt readings, even at high and low latitudes. PNI's advanced hard and soft iron correction algorithms allow for compensation of magnetic distortions inherent in the user's system, resulting in reliable and consistent readings.



...at a 2 axis price.

By incorporating PNI's patented magneto-inductive sensors and intelligent power-saving algorithms, the Prime consumes less than half the power of magneto-resistive-based compasses. Unlike competitive products, the Prime works well at high and low latitudes where the earth's magnetic field has a very high Z-axis component. Applications include inclusion in binoculars and telescopes, robots and small unmanned vehicles, sonobouys, acoustic Doppler current profilers (ADCPs) and seismic monitoring equipment.

Specifications

Performance Specifications	Heading	Accuracy ($\leq 45^\circ$ of tilt)	1° rms
		Resolution	0.1°
		Repeatability	0.05° rms
	Tilt	Accuracy	<1° rms
		Resolution	0.1°
		Repeatability	0.05° rms
	Maximum Dip Angle (functional)	85°	
I/O Characteristics	Maximum Sample Rate	10 samples/sec	
	Communication Interface	Binary RS232	
Mechanical Characteristics	Dimensions (<i>l x w x h</i>)	3.3 x 3.1 x 1.3 cm	
	Weight	5 gm	
Power Requirements	Supply Voltage	3.6 - 5 VDC (unregulated)	
	Typical Current Draw (continuous output)	16 mA	
	Current Draw (sleep mode)	0.6 mA	
Temperature Range	Operation	-40 °C to +85 °C	
	Storage	-40 °C to +85 °C	



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CompassPoint Prime

3-axis digital compass module

	2-AXIS
	3-AXIS
	HARD AND SOFT IRON CORRECTION
	INTEGRATED PROCESSOR
	LOW POWER

PNI SENSOR CORPORATION is America's leader in the exacting science of turning information from the Earth's magnetic field into usable orientation data. Building on decades of patented knowledge of magnetic fields and their anomalies, PNI offers today's most reliable magnetic sensors, including both 2 and 3 axis compasses and other advanced sensor systems. Highly sensitive and finely tuned, PNI offers a range of sensors to meet varying price, accuracy and footprint size needs.

Serving a demanding, wide-ranging list of industries and applications, PNI's U.S. based team of physicists, engineers, researchers and quality control experts can help speed your time to market and ensure marketplace success. Nimble and responsive, PNI offers a multitude of sensors to meet today's growing technology needs.

